

REMARKS

Claims 1-12 are now pending, with claims 1, 3 and 12 being the independent claims. Claims 1-4 have been amended. Independent claim 12 has been added. Support for independent claim 12 may be found, for example, at pg. 5, lines 10-29, at pg. 7, lines 15-18 and Fig. 3 of the originally filed specification. No new matter has been added by way of the amendment. Reconsideration of the application, as amended, is respectfully requested.

In the October 31, 2005 Office Action, independent claims 1 and 3, and dependent claim 4 were rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,587,444 (“*Lenzo*”), while dependent claims 5-9 were rejected under 35 U.S.C. §103(a) as unpatentable over *Lenzo*. In addition, dependent claims 10 and 11 were rejected under 35 U.S.C. §103(a) as unpatentable over *Lenzo* in view of U.S. Patent No. 5,594,720 (“*Papadopoulos*”). For the following reasons, it is respectfully submitted that all claims of the present application are patentable over the cited references.

Independent claim 1 has been amended to recite the step of “reserving at least one time slot from [a] first plurality of time slots or [a] second plurality of time slots for [a] at least one substation needing more traffic capacity than at least one second substation, [where the] first plurality of time slots [is] different than [the] second plurality of time slots and substantially all of [the] time slots [are] used”. This feature permits the balancing of traffic capacity between substations. Claim 1 has also been amended to recite the steps of “transmitting ... during a first plurality of time slots” and “receiving ... during a second plurality of time slots”. Independent claim 3 has been amended in a corresponding manner, wherein independent claim 3 has also been amended to indicate that uplink and downlink time slots are allocated according to traffic needs. Support for the amendments may be found at pg. 7, line 34 thru pg. 8, line 12 of the originally filed specification, as well as dependent claims 10-11. No new matter has been added.

Lenzo relates to a system that utilizes a mixed, or hybrid, division duplex mechanism such that the uplink and downlink transmissions are separated in frequency while time slots associated with transmission and reception are also separated in time (see col. 2, lines 6-10). However, *Lenzo* fails to teach the reserving step recited in amended independent claim 1. That is, *Lenzo* fails to teach or suggest a reserving step that permits the balancing of traffic capacity between substations. In view of the foregoing, amended independent claim 1 is patentable over *Lenzo* and thus, reconsideration and withdrawal of the rejection under 35 U.S.C §102(e) are in order, and a notice to that effect is solicited.

The Examiner acknowledges (Office Action, pg. 7) that *Lenzo* differs from the claimed invention in that *Lenzo* fails to teach or suggest “uplink and downlink time slots allocated according to traffic needs”. *Papadopoulos* has been cited by the Examiner to cure this deficiency of *Lenzo*. *Papadopoulos* relates to an apparatus and method for reducing co-channel interference in multiple-access cellular communication systems in which frame time or frequency slots are allocated between the uplink and downlink (see Abstract). However, *Papadopoulos* fails to cure the deficiencies of *Lenzo*.

The Examiner contends (Office Action, pg. 7) that *Papadopoulos* teaches uplink and downlink time slots allocated according to traffic needs (col. 8, lines 3-5). However, Applicant respectfully disagrees with this assertion.

Papadopoulos (col. 8, lines 3-5) teaches that shared time division duplexing (STDD) allows (i.e., a portion of) time slots to be dynamically allocated to either the uplink or downlink transmission depending on demand, although mainly fixed time slots are allocated to uplink and downlink transmission (also see Abstract). *Papadopoulos* (col. 8, lines 13-14) teaches the object of the system and method disclosed therein is to reduce the interference between frame time slots because the interference increases the packet-dropping rate and thereby reduces system capacity (see also col. 8, lines 23-24). However, *Papadopoulos* fails to teach or suggest the notion of balancing traffic capacity between substations, i.e., the step of reserving time slots for at least one substation needing more traffic capacity than at least one second substation, as recited in amended independent claim 1. Rather, *Papadopoulos* teaches that a portion of time slots is allocated to decrease interference and, thereby increase overall system capacity. Thus, *Papadopoulos* teaches away from “balancing” traffic capacity between substations. Hence, a person skilled in the art would not be motivated to combine *Lenzo* and *Papadopoulos* so as to arrive at Applicant’s invention recited in amended independent claim 1, i.e. a system that would reserve time slots for a substation needing more traffic capacity than another substation.

Further, as also acknowledged by the Examiner (Office Action, pg. 8), *Papadopoulos* (col. 16, lines 1-3) teaches that dynamic slot-direction frame organization is used to improve system capacity. *Papadopoulos* (Fig. 8B) teaches slot-direction frame organization, wherein an additional portion of frame 856 includes slots that are not allocated to either uplink or downlink communications (see, e.g., col. 10, lines 42-45). Consequently, *Papadopoulos* fails to teach the step of “reserving at least one time slot from [a] first plurality of time slots or [a] second plurality of time slots for ... at least one substation,” as recited in amended independent claim 1. Rather, *Papadopoulos* teaches away from the invention recited in amended independent claim 1.

Papadopoulos teaches that dynamically allocated slots include a distinct portion of the frame 856 which is separated from uplink 852 or downlink 854 portions, as shown in Fig. 8B. Therefore, the combination of *Lenzo* and *Papadopoulos* fails to achieve the invention recited in amended independent claim 1, since *Papadopoulos* also fails to teach or suggest that at least one time slot is reserved from said first plurality of time slots or said second plurality of time slots. This feature is used to permit the balancing of traffic capacity between substations. *Lenzo* and *Papadopoulos*, individually or in combination, fails to teach or suggest this aspect of the claimed invention. In view of the foregoing, amended independent claim 1 is patentable and, thus reconsideration and withdrawal of the rejections under 35 U.S.C. §103(a) are in order, and a notice to this effect is requested.

New independent claim 12 also includes the features directed to reserving time slots. Therefore, claim 12 is also patentable over the combination of *Lenzo* and *Papadopoulos* for the reasons discussed above with respect to independent method claim 1.

Independent claim 3 is the system claim in which the method of claim 1 is implemented. Accordingly, independent system claim 3 is patentable over the combination of *Lenzo* and *Papadopoulos* for the reasons discussed above with respect to independent method claim 1.

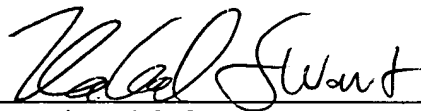
In view of the patentability of independent claims 1, 3 and 12, for the reasons set forth above, dependent claims 2 and 4-11 are all patentable over the prior art.

Based on the foregoing amendments and remarks, this application should be in condition for allowance. Early passage of this case to issue is requested.

It is believed that no fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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